

line characteristics: Age, Sex, and BMI. We used existing literature and public datasets to estimate the parameters of the model. For the BMI trajectory, we utilized existing literature on pooled databases of the individuals' BMI over time. For the probability of death, we constructed life tables by estimating the 5-year probability of death using a logistic regression model using data from the National Health Institute Survey linked with National Death Index (NHIS-NDI) between 1997 and 2005. For costs and QALYs, we use Medical Expenditure Panel Survey Panels 6–10 to estimate hedonic linear regressions in each period. Costs and QALYs were discounted at 3%. **RESULTS:** In the base case—for a 45 year-old female—the expected age of death for baseline BMI of 25, 35, or 45 was 83, 80, and 77, respectively. The projected difference in discounted lifetime healthcare costs between this non-obese (BMI = 25) person and someone BMI = 45 is about \$26,000. If the loss in QALYs were valued at \$100,000/QALY, the net economic value loss is projected at \$271,000. **CONCLUSIONS:** Obesity is associated with higher medical costs, lower quality of life, and reduced life expectancy. The societal cost of delivering effective weight loss interventions to obese Americans should be considered in the context of these lifetime outcomes.

PSY17

A PHARMACOECONOMIC EVALUATION OF ROMIPLOSTIM (NPLATE®) FOR THE TREATMENT OF CHRONIC IMMUNE THROMBOCYTOPENIA (ITP) IN MEXICO

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OBJECTIVES: ITP is characterized by reduced platelet counts and increased risk of bleeding. Romiplostim, a first-in-class thrombopoietin mimetic, safely increases and sustains platelet counts in most adult patients with chronic ITP for as long as needed, while reducing the need for concurrent and emergency medications. We evaluated treatment costs per overall platelet response with romiplostim + concurrent treatment vs. placebo + concurrent treatment in chronic adult ITP, from a Public Mexican Healthcare perspective. **METHODS:** Overall response, defined as ≥ 4 weekly platelet responses ($\geq 50 \times 10^9/L$) from weeks 2 to 25, was derived from two randomized parallel trials with splenectomized and non-splenectomized patients over period of 24 weeks. All patients were allowed to enter on concurrent ITP medication (danazol, corticosteroids, azathioprine) and receive rescue medication (eg, intravenous immunoglobulin). Treatment costs included intervention, rescue medication and management of bleeding-related events during one year period. Unitary costs were obtained from the 2010 Official Price List of the Public Healthcare System in Mexico (\$MXP). Mean treatment cost per response was calculated for splenectomized and non-splenectomized patients. **RESULTS:** Cost per response was lower for romiplostim compared to placebo. Overall response rates were 79% for romiplostim and 0% for placebo in splenectomized patients and 88% for romiplostim vs. 14% for placebo in non-splenectomized patients. Mean treatment costs were MXP\$574,580 for romiplostim and MXP\$301,218 for placebo in splenectomized patients and MXP\$402,083 for romiplostim and MXP\$180,692 for placebo in non-splenectomized patients. Cost per response were MXP\$727,317 for romiplostim and infinite cost per response for placebo in splenectomized patients and MXP\$456,912 for romiplostim and MXP\$1,290,655 for placebo in non-splenectomized patients. The main cost-offsets were due to reduced immunoglobulin rescue use. **CONCLUSIONS:** Given the limited number of effective therapies in ITP, romiplostim demonstrates an important and cost-efficient option for both non-splenectomized and splenectomized patients for the Mexican Public Healthcare System.

PSY18

A DECISION ANALYSIS MODEL EXPLORING THE RESULTS OF A PHASE II TRIAL OF ELTROMBOPAG FOR PATIENTS WITH CHRONIC HEPATITIS C, CIRRHOSIS AND THROMBOCYTOPENIA

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OBJECTIVES: Thrombocytopenia may prevent chronic hepatitis C (CHC) patients from initiating or maintaining anti-viral therapy. Eltrombopag is a thrombopoietin receptor agonist currently undergoing phase III trials for treatment of CHC-related thrombocytopenia. This study examines the cost-effectiveness of eltrombopag in CHC patients with cirrhosis and thrombocytopenia. **METHODS:** A two-part model was developed to estimate quality adjusted life years (QALYs) gained with and without eltrombopag for a hypothetical population of 50-year-old, white, male CHC patients with thrombocytopenia and cirrhosis who are otherwise eligible to initiate anti-viral therapy. A decision tree followed the first 48 weeks of anti-viral therapy for patients receiving eltrombopag (30,50, or 75mg dose) versus a placebo controlled, wait-and-see (W&S) strategy. Lifetime outcomes of anti-viral therapy success or failure were projected using a Markov model. Eltrombopag probabilities were taken from a Phase II trial; other probabilities and costs were derived from published literature. Model outcomes are presented as incremental cost effectiveness ratios (ICERs). A probabilistic sensitivity analysis was performed to analyze parameter uncertainty. **RESULTS:** Successive eltrombopag dosing strategies were associated with incremental increases in cost and QALYs. All strategies were cost-effective at a threshold of \$50,000/QALY gained. The 75mg strategy weakly dominated the 50mg and 30mg strategies and had an ICER of \$27,496 compared to the W&S strategy. Results were robust to variation among input parameters. **CONCLUSIONS:** The results of this study support the use of eltrombopag as a cost-effective option in CHC patients with thrombocytopenia. Patients on eltrombopag are more likely to complete antiviral therapy, leading to increased quality of life and decreased future costs over a lifetime. More studies are needed to analyze the safety of eltrombopag and to provide more accurate estimates of its effect on platelet counts and patient withdrawal from antiviral therapy.

PSY19

THE COST-EFFECTIVENESS OF BORTEZOMIB PLUS MELPHALAN AND PREDNISONE VERSUS LENALIDOMIDE PLUS MELPHALAN AND PREDNISONE WITH CONTINUOUS LENALIDOMIDE MAINTENANCE TREATMENT FOR THE INITIAL TREATMENT OF MULTIPLE MYELOMA IN THE UNITED STATES

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OBJECTIVES: This study aimed to assess incremental cost-effectiveness of VMP vs MPR-R in patients newly diagnosed with multiple myeloma (MM), ineligible for ASCT, with average age of 70 years. **METHODS:** A Markov model from US payer's perspective was developed to assess cost-effectiveness of VMP vs MPR-R for treatment of MM. The model included seven health states: responses (multiple), treatment-free/maintenance, progression, second-line treatment, and death. Monthly transition probabilities were estimated from patient-level data (VISTA) for VMP and MP and from published data (MM-015) for MPR-R. Costs included drug, medical, adverse event, second-line treatment, and resource utilization in 2010 US-dollar value. State-specific utilities were derived from patient-level EQ-5D using US-specific weights. Effectiveness was expressed in LYs and QALYs. Costs and effectiveness were discounted at 3%. ICER was calculated for VMP vs MPR-R over 20-year horizon (lifetime). In the base case, the MPR-R vs MP hazard ratio (HR) for PFS was 0.499 and that for OS was 1, as the survival benefit with MPR-R vs MP was not observed in MM-015. One-way sensitivity analyses were conducted for key parameters to assess the general robustness of the model. **RESULTS:** Base-case results for VMP vs. MPR-R showed: \$119,102 vs \$248,358 for direct medical costs; 4.187 years vs 3.409 years for LYs; cost of R maintenance was \$107,047. VMP was associated with reduced costs and better outcomes compared with MPR-R; VMP costs approximately 50% less than MPR-R and seems to provide slightly more QALYs (0.567) on average. Sensitivity analyses supported the robustness of model findings and identified the MPR-R vs MP HR for OS as a key driver; only when this HR was ≤ 0.24 did MPR-R become cost-effective vs VMP at \$100,000 per QALY. **CONCLUSIONS:** VMP had lower costs and better health outcomes compared to MPR-R. R maintenance showed little additional benefit.

PSY20

ECONOMIC EVALUATION OF SEQUENTIAL ANALGESIC TREATMENT IN THE MANAGEMENT OF MODERATE ANKLE SPRAIN IN MEXICAN ADULTS

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OBJECTIVES: Ankle sprain causes walking limitation, pain and consequently, economic losses. The purpose of this study was to estimate the cost-effectiveness from a societal perspective of sequential use of parecoxib/celecoxib for pain management associated with ankle sprain in adults. **METHODS:** A Markov model was performed to estimate health and economic consequences during a time horizon of 45 days (3-day cycles). Effectiveness measures were: percentage of patients reporting pain reduction, percentage of patients reporting $\geq 50\%$ pain reduction from baseline, reduction of length of stay (LOS) and reduction in the number of treatment retreatments due adverse events. Transition probabilities were obtained from a meta-analysis employing international published literature. Doses of comparators were: diclofenac (75mg bid) followed by diclofenac (100mg bid); parecoxib (40mg bid) followed by celecoxib (200mg bid) and ketorolac (30mg qid) followed by ketorolac po (10mg tid) as the reference. Parenteral and oral forms were administered for two and five days, respectively. Resource use was obtained from Social Security Mexican Institute databases (n=1,395 records). Direct costs were extracted from institutional official sources and indirect costs from a validated survey applied to patients. Costs included: hospitalization, drugs, medical procedures, imaging, adverse events management, disability benefits, productivity losses, and out-of-pocket expenses. Probabilistic sensitivity analyses were performed employing bootstrapping techniques. Acceptability curves were constructed. **RESULTS:** Parecoxib/celecoxib, ketorolac and diclofenac costs per patient were: US\$440.77 [95%CI US\$425.65-US\$455.88], US\$526.08 [US\$509.97-US\$542.20] and US\$815.43 [US\$790.18-US\$840.68], respectively (p<0.05). Parecoxib/celecoxib exhibits the lowest LOS (0.69 days [0.67–0.71] (p<0.05)) and number of treatment discontinuations (16/1000 patients). Acceptability curves showed that parecoxib/celecoxib will be cost-effective with 90% of confidence at a willingness to pay closer to US\$0. **CONCLUSIONS:** Parecoxib/celecoxib is the less costly treatment to manage pain associated with moderate ankle sprain in Mexico; as well it represents a cost-saving alternative in LOS reduction and treatment discontinuation regarding competing alternatives.

PSY21

COST-EFFECTIVENESS ANALYSIS OF TREATMENT WITH AMFEPRAMONE (DIETHYLPROPION) IN OBESITY IN MEXICO

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OBJECTIVES: The treatment guidelines of obesity at the Mexican Institute for Social Security (IMSS) consider the pharmacological treatment together with the change in health habits a proper option in cases of obese patients (BMI ≥ 30 kg/m²). With the withdrawal of Sibutramine of the Mexican market, Diethylpropion (Amfepramone) emerge as a good candidate to fill the void of a scheme to control and reduce